

Serial No.: 09/636,209

Attorney Docket No.: 00P07812US

**REMARKS**

Upon entry of the instant Amendment, Claims 1-16 are pending. Applicant gratefully acknowledges that claims 12 and 16 were allowed. Claims 1, 7, 8, 13, and 14 were amended to overcome Section 112 rejections.

**Section 112 Rejections**

Claims 8-11 were rejected under 35 U.S.C. 112, first paragraph, as allegedly being nonenabling "because the specification, while being enabling for detection of overwrite errors, does not reasonably provide enablement for the general field of detecting and correcting of memory corruption." Claim 8 has been amended to recite "reconstructing said invalid portion by copying over a portion of said valid portion to said invalid portion." Applicant respectfully submits that the specification is thus fully enabling.

Claims 1-11 and 13-15 were rejected under 35 U.S.C. 112, second paragraph, as being incomplete for allegedly omitting essential steps. In particular, in claim 1, 7, and 8, there was asserted to be "no indication of previous data being written into the buffer to be overwritten." Applicants respectfully submit that the claims do not in fact omit essential steps. While a determination that an overwrite has occurred is based on a lack of identity of memory portions, applicant's invention does not relate to pre-loading a memory segment, as the suggestion in the Official Action implies. Instead, it relates, among other things, to a comparison of the header and the redundant portion, which can be practiced regardless of the content of the logically contiguous memory segment.

Thus, Claim 1 has been amended to clarify "if said comparing indicates that said redundant portion and said initial portion are not the same, signaling an overwrite error;" claim 7 has been amended to recite "providing a verify memory routine for comparing

Serial No.: 09/636,209

Attorney Docket No.: 00P07812US

said redundant portion to said initial portion to determine whether said initial portion and said redundant portion are the same and therefore if an erroneous overwrite has occurred." Claim 8 has been amended to recite "upon accessing a memory segment logically contiguous another memory segment, comparing a redundant portion at the end of said segment to an initial header portion of said segment."

Claims 13 and 14 were rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In particular it was alleged to be unclear what "has been written to the buffer." These claims have been amended to recite "erroneous overwrite" in accordance with the suggestion in the Official Action.

Applicants note that the Advisory Action mailed April 20, 2004 indicates that "the U.S.C. 112 first and second paragraph issues of claims 13 and 14 have not been addressed by applicant...Specifically, the 'portion of a written to buffer' but also the 'comparing header portion to an initial portion...'"

As described above, the claims have been amended to recite "erroneous overwrite," in accordance with the suggestion in the Official Action. Further, Applicant respectfully submits that it is clear to any person of ordinary skill in the art that the claim relates to comparing once a buffer has been written-to; i.e., the fact that a buffer has been written-to and determine if an overwrite has occurred.

Claims 13 and 14 have been amended to recite "comparing final portion and header portion."

As such, the Examiner is respectfully requested to reconsider and withdraw the Section 112 rejections of the claims.

### **Section 103 Rejections**

Claims 7, 13, and 15 were rejected under 35 U.S.C. 103(a) as being unpatentable over Natrasevski et al., U.S. Patent No. 5,475,820 ("Natrasevski") in view of Ozawa, Japanese Patent No. JP04100338A ("Ozawa"). Applicants respectfully submit that the claimed invention is not taught, suggested, or implied by Natrasevski

Serial No.: 09/636,209

Attorney Docket N .: 00P07812US

or Ozawa, either singly or in combination. As described in response to the previous Official Action, Claim 7 relates to a method for allocating memory segments and providing for initial and redundant allocation to determine if an erroneous overwrite has occurred. In particular, Claim 7 recites:

A method for allocating memory segments so as to provide for detecting memory corruption comprising:

at initial memory segment allocation, providing a redundant portion at the logical end of a memory segment, said redundant portion containing data derived from an initial header portion of said segment; and

providing a verify memory routine for comparing said redundant portion to said initial portion to determine whether said initial portion and said redundant portion are the same and therefore if an erroneous overwrite has occurred.

Similarly, claim 13 relates to a system able to determine if an overwrite has occurred and, in particular, claim 13 (and hence, dependent claim 15) recites:

An information processing system comprising:

a process space containing a plurality of executable logic components;  
buffer allocation logic able to establish a buffer structure in a memory

space;

buffer write logic able to write data to buffers; and

buffer verify logic able to determine if an erroneous overwrite has occurred by comparing a header portion and an initial portion of a written to buffer

In contrast, Natrasevschi relates to a write-once read-many (WORM) memory and, in particular, to *preventing* an overwrite from occurring, rather than determining *if* an overwrite has occurred, as generally recited in the claims. That is, in Natraseschi, data are written to the medium. Pointers in a management directory then define contiguously written areas of the media, with flag bits within sectors then defining when free sectors are available when the management directory is filled. *Before* a new write operation occurs, a check is made; if the pointers indicate the address is in an already-written sector, an error indication is made. *Natraseschi does not, however, relate to determining, by comparing initial header and redundant end portions of a written-to*

Serial N .: 09/636,209

Attorney Docket No.: 00P07812US

*memory segment, whether an erroneous overwrite has occurred. Indeed, Natraveschi teaches that such a comparison would be pointless, because for example if "an attempt is made on this [WORM] media to write on this media a second or subsequent times, the new data is written over the old data, resulting in garbled data which is unintelligible." Col. 1, lines 41-44. Thus, such a comparison as recited in the claim at issue cannot be made and, if anything, the reference teaches away from the claimed invention.*

Ozawa is relied on for allegedly teaching in a transmission system "inputting a same nonreproducible data to a head record and a final record of a transmission data and comparing the head record with the final record at reception so as to confirm the coincidence." That is, in Ozawa, a check is made to determine if the transmitted data arrived correctly; it does not relate in any way to determining if an overwrite error has occurred. Furthermore, nothing in either reference contains a hint that comparing an initial record and final record could have anything to do with determining if an overwrite error has occurred.

Instead, assuming (for sake of argument only) one properly combined Ozawa with Natraveschi, in operation, Natraveschi would determine if a sector was already written to and allow the subsequent writing to occur or not, regardless of any start and end record comparison.

Thus, because neither Natraveschi nor Ozawa provide for detecting whether an overwrite of a memory segment has occurred, the Examiner is respectfully requested to reconsider and withdraw the rejection.

Serial No.: 09/636,209

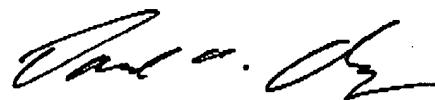
Attorney Docket No.: 00P07812US

For all of the above reasons, Applicants respectfully submit that the application is in condition for allowance, which allowance is earnestly solicited.

Respectfully requested,

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